

Remarks

The Office Action mailed June 9, 2003 has been received and the Examiner's comments carefully reviewed. Prior to entry of this paper, Claims 1-20 were pending. Claims 1-7, 12-15, and 17-19 were rejected. In this paper, new Claims 21-26 are added. Claims 1-26 are currently pending. No new subject matter has been added. For at least the following reasons, Applicants respectfully submit that the pending claims are in condition for allowance.

Objection to Claims 12 and 17

Claims 12 and 17 were objected to as having informalities. Claims 12 and 17 have been amended for clarification. It is respectfully submitted that Claims 12 and 17 as amended are proper.

Rejection of Claims 1-7, 12-15, and 17-19

Claims 1, 3, and 4 were rejected under 35 U.S.C. § 102(b) as being anticipated by Fortune (USPN 5,333,105). Claims 2, 5-7, 12-15, and 17-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fortune in view of Ker (USPN 6,249,410).

Claim 1 is submitted to be allowable at least because Fortune does not disclose, "the shunt circuit is protected from the fast transient event," as recited in Applicants' Claim 1.

Fortune discloses an apparatus for protecting a protected electrical device in a vehicle against transient changes in voltage from a power source. These transient changes are less than .5 second, and may result from a loose battery connection. When the rate of change in voltage in the main conductor exceeds a predetermined rate of change, a shunt switch is activated. When the shunt switch is activated, the shunt switch shunts a portion of the electrical current in the conductor away from the protected electrical device. (See Fortune at column 1, lines 5-16 and column 2, lines 17-68).

Fortune does not disclose protecting the shunt switch itself from a fast transient event. Rather, Fortune discloses providing a shunt switch to protect the protected electrical device from a transient change.

Fortune does not disclose a shunt circuit that is arranged to couple a fast transient signal to a control terminal of the shunt circuit in response to a fast transient event such that the shunt circuit is protected from the fast transient event, as found in Applicants' Claim 1.

Claims 2-7 are submitted to be allowable at least because they depend on Claim 1, which is proposed to be allowable.

Claim 12 is submitted to be allowable because the prior art of record does not disclose, teach, or suggest "providing the another control signal to the control terminal in a time interval that is shorter than the amplifier response time." The Office Action states that Fortune discloses "providing the another control signal to the control terminal in a time interval that is shorter than the amplifier response time (col. 4, lines 20-33)." It is respectfully submitted that Fortune does not disclose providing the another control signal to the control terminal in a time interval that is shorter than the amplifier response time. Fortune discloses that an output signal of combined comparator and shunt controller **32** controls opening and closing of the shunt switch **38**. (See Fortune at col. 2, lines 36-68). Fortune does not disclose any other signal controlling shunt switch **38**. Fortune also does not disclose providing a signal that is capable of activating a shunt circuit in a time interval that is shorter than the amplifier response time, as found in Applicants' Claim 12.

Claims 13-15 are submitted to be allowable at least because they depend on Claim 12, which is proposed to be allowable.

Claim 17 is submitted to be allowable for reasons analogous to those stated with regard to Claim 12.

Claim 18 is submitted to be allowable because there is no motivation to modify the Fortune reference by combining it with Ker as suggested by the Office Action. Fortune discloses a method of protecting an electrical device in a vehicle from transient events that last for

approximately .5 seconds. Ker discloses ESD protection. There is no motivation to modify the system disclosed by Fortune by including ESD protection.

Claim 19 is submitted to be allowable at least because it depends on Claim 18, which is proposed to be allowable.

For at least the foregoing reasons, Claims 1-7, 12-15, and 17-19 are submitted to be allowable, and notice to that effect is earnestly solicited.

New Claims 21-26

New Claim 21 is submitted to be allowable at least because it depends on Claim 1, which is proposed to be allowable. Claim 21 is also submitted to be allowable because it contains subject matter similar to Claim 16, which was identified by the Examiner as containing allowable subject matter.

New Claims 22-23 are submitted to be allowable at least because they depends on Claim 12, which is proposed to be allowable. Claim 22 is also submitted to be allowable because it contains subject matter similar to Claim 8, which was identified by the Examiner as containing allowable subject matter. Claim 23 is also submitted to be allowable because the prior art of record does not disclose, teach, or suggest “the fast transient ESD event occurs over a time interval, the time interval is less than the amplifier response time, the capacitance circuit has an associated capacitance, and wherein the associated capacitance is sufficiently great to couple the fast transient signal to the control terminal within the time interval.”

New Claims 24 and 25 are submitted to be allowable at least because they depend on Claim 17, which is proposed to be allowable. Claim 24 is also submitted to be allowable because it contains subject matter similar to Claim 20, which was identified by the Examiner as containing allowable subject matter. Claim 25 is also submitted to be allowable because it contains subject matter similar to Claim 8, which was identified by the Examiner as containing allowable subject matter.

New Claim 26 is submitted to be allowable at least because it depends on Claim 18, which is proposed to be allowable. Claim 26 is also submitted to be allowable because it

contains similar subject matter as Claim 8, which was identified by the Examiner as containing allowable subject matter.

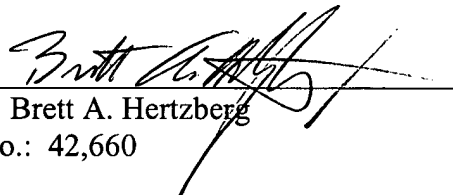
Summary

It is respectfully submitted that each of the presently pending claims (Claims 1-26) are in condition for allowance and notification to that effect is requested. The Examiner is invited to contact Applicants' representative at the below-listed telephone number if it is believed that prosecution of this application may be assisted thereby. Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicants reserve the right to raise these arguments in the future.

Respectfully submitted,
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